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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/658,708

09/08/2003

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67,200-1093

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02/21/2007

EXAMINER

STINSON, FRANKIE L

ART UNIT

PAPER NUMBER

1746

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/658,708

Applicant(s)

KAO ET AL.

Examiner

FRANKIE L. STINSON

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1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7, 8, 11, 12 and 21-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-4, 7, 8, 11, 12 and 21-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant claims that the during a developing process there is an adjustable controlled liquid flow on the backside of the substrate. Support for this limitation in the specification, as originally filed, is not found in the specification. It requested that Applicant particularly point the passage in the originally filed specification to provide support of the adjustably controlled liquid flow on the backside of substrate.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

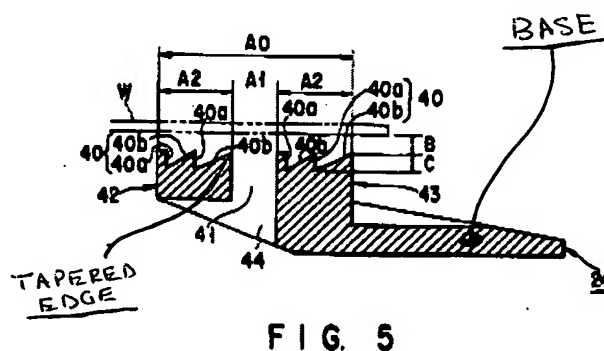
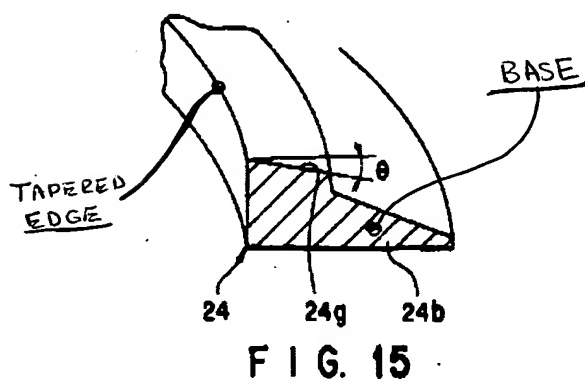
5. Claims 1-4, 7, 8, 11, 12 and 21-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (U. S. Pat. No. 5,689,749) in view of Japan'514 (Japan 7-45514).

Re claims 1, 11, 21, 23, 25 and 28, Tanaka is cited disclosing an apparatus for dispensing a liquid onto a substrate frontside and backside during a development process and adjustably controlling liquid flow (via controller 35) on said substrate backside during said development process to improve a rinsing step, comprising:

a support (21) for receiving the substrate;

a dispensing head (23) for dispensing the liquid onto the substrate;

a knife ring (24, see figs. 5 or 15) having a base and a tapered edge



comprising an upper edge of said knife ring extending from said base, said knife ring vertically adjustably mounted (see col. 9, lines 15-27) beneath said support to position said knife ring upper edge adjacent said substrate backside; and

a plurality/pair of independently-actuated vertical adjustment mechanisms (24h, see fig. 3) operably engaging said base of said knife ring for placing said knife ring upper edge at selected vertical positions adjacent said substrate backside, wherein said vertical positions are selectable from a position facilitating

position facilitating flow (fig. 9B, 17D) of liquid between said knife ring upper edge and said substrate backside and a position substantially preventing flow (fig. 9A, 17A) of liquid between said knife upper edge and said substrate backside differs from the claims only in the recitation of the plurality/pair of independent adjustment being automatically actuated during the development process. To have the ring adjusted is deemed to be of little patentable weight in that it is old and well known to employ automatic mechanism to in place of manual actuation, for the purpose of removing active human involvement. arrangements (see MPEP 2144.04, **III. AUTOMATING A MANUAL ACTIVITY** In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined "old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed." The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.). Nonetheless, Japan'514 is cited disclosing the automatic adjustment for adjusting a knife ring during the development process as claimed. It would therefore would have been obvious to one having ordinary skill in the art to modify the device of Tanaka, to have the ring adjusted automatically during the treatment process as taught by Japan'514, for the purpose of removing active human involvement and for decreasing

down time of the processing equipment for ring adjustment. As for the plurality/pair of automatic means, this has been deemed to be a mere duplication of parts (MPEP 2144.04 REVERSAL, DUPLICATION OR RE-ARRANGEMENT OF PARTS). Re claims 2, 7, 29 and 30, no patentable distinction is deemed to exist between the fluid actuated cylinder as claimed and the elevating mechanism (24) in Japan'514. The fluid actuated cylinder, is deemed to be an obvious matter of design (see MPEP 2144.06 SUBSTITUTING EQUIVALENTS KNOWN FOR THE SAME PURPOSE). Re claims 3, 8, 12 and 31, no patentable distinction is deemed to exist between the diameter of 290mm as claimed and the 203.2mm (8 inch, col. 7, line 51) in the Tanaka. This is also applicable to the distance of the gap as claimed in claims 22, 24, 26 and 27. Re claim 4, the Tanaka and Japan'514 are cited as applied to the subject matter of claim 2 above.

6. Applicant's arguments filed December 26, 2006 have been fully considered but they are not persuasive. In regard to the remarks on the Tanaka reference, namely that the same fails to disclose the adjustment during the development process, please note Japan'514. As for the adjustably controlling the flow, it first noted that support or structure for this limitation cannot be found in the instant specification as originally filed. Nonetheless, Tanaka discloses a typical controller for an automated treatment process, and is therefore capable of being program in many possible control scenarios. To have the flow of backside sealing control, note the Tanaka discloses the controller (35) connected to the fluid source (30) with the controller has been defined as "a regulating mechanism; governor", (DICTIONARY.COM). No patentable distinction is deemed to

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exist between "adjusting" as claimed and the "controller/regulation" device in Tanaka. In regard to the remark that Tanaka fails to disclose the knife having a tapered edge, attention is directed to Tanaka's figs. 5 and 15 as annotated above. As for Tanaka not disclosing a plurality of independently-actuated automatically vertical adjustment mechanism, while not automatic, Tanaka does in fact disclose a plurality of independently-actuated vertical adjustment mechanisms (24h). To have the same automatically adjusted it of little patent weight in that it is old and well known to automate various mechanical operations, to save time, to be more precise, save lives or to remove active human involvement among others.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Japan'418, Donoso, Ikeno et al. Groshong, Yoshioka et al., Moslehi et al., and Mizuno, note the knife rings.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANKIE L. STINSON whose telephone number is (571) 272-1308. The examiner can normally be reached on M-F from 5:30 am to 2:00 pm and some Saturdays from approximately 5:30 am to 11:30 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr, can be reached on (571) 272-1700. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fls



FRANKIE L. STINSON
Primary Examiner
GROUP ART UNIT 1746